

WHAT IS CLAIMED IS

1. A board-to-board connector comprising:
a receptacle including a receptacle housing receiving a plurality of first terminals in two parallel arrays, the receptacle housing having a flat base, opposite sides of the flat base forming a plurality of first slots for holding the first terminals, side walls projected vertically from edges of the flat base, a projected portion extending upwardly from a middle portion of the flat base to define a lodged channel with the side walls therebetween, the projected portion forming a plurality of mounting holes in accordance with the first slots, and each first terminal having a first base portion, a first solder tail portion extending outwardly from one end of the first base portion for connection with a first printed circuit board, and a first spring contact portion bent upwardly from the other end of the first base portion and received in the mounting hole, and
a plug, including a plug housing receiving a plurality of second terminals in two parallel arrays, the plug housing having a bottom board, opposite sides of the bottom board forming a plurality of second slots for holding the second terminals, lateral boards extending upwardly from a rim of the bottom board to define a recess therein, a plurality of lodged holes extending through the lateral boards in accordance with the second slots, and each second terminal having a second base portion, a second solder tail portion extending outwardly from one end of the second base portion for connection with a second printed circuit board, a second spring contact portion bent upwardly from the other end of the second base portion fitted in the lodged hole, and a projection forming on the second spring contact portion and extending away from the second base portion,
wherein the lateral boards slide into the lodged channel, the projected portion inserts into the recess, the first spring contact portion fastens the projection when the receptacle and the plug are in assembled condition.
2. The board-to-board connector as claimed in claim 1, wherein the first spring contact portion of the first terminal is bent to form a contact end which a bend angle is less than 90 degree.
3. The board-to-board connector as claimed in claim 1, wherein the projection is shaped with an arc surface.

4. The board-to-board connector as claimed in claim 1, wherein the receptacle provides with a flange on inner surfaces of the side walls extending toward the lodged channel, the plug is shaped to have a first wedge hole formed on outer surfaces of the lateral boards in according to the flange, when the plug engages with the receptacle, the flange interlocks the first wedge hole.
5. The board-to-board connector as claimed in claim 1, wherein a retention portion extends upwardly from the first base portion of the first terminal.
6. The board-to-board connector as claimed in claim 5, wherein the side walls define a plurality of receiving holes to receive the retention portion of the first terminal.
7. The board-to-board connector as claimed in claim 5, wherein a pair of barbs are provided on opposite edges of the retention portion of the first terminal.
8. The board-to-board connector as claimed in claim 5, wherein the retention portion of the first terminal is provided with a locking portion extending parallel with the first base portion toward the first spring contact terminal, the lateral boards of the plug form a plurality of second wedge holes on its outer surface, when the plug engages with the receptacle, the locking portion interlocks the second wedge hole.
9. The board-to-board connector as claimed in claim 1, wherein opposite inner surfaces of the lateral boards define a plurality of engaging holes which are formed on an upper portion of the lateral boards in accordance with the second slots and communicating with the lodged holes.
10. The board-to-board connector as claimed in claim 9, wherein a contact head is bent from a free end of the second spring contact portion of the second terminal, and the contact head buckles the engaging hole to fix the second terminal into the plug housing.